

are very reluctant to take advantage of long-term discounts. Sprint, for example, seldom signs up for term discounts for periods longer than five years at the present time, in order to take advantage of new competitive opportunities that might come along. Obviously, an RBOC-affiliated IXC will be interested in taking access only from that RBOC, and may be the only customer that realistically could be expected to sign, for, e.g., a 7, 10 or 20 year term plan. Likewise, it is not difficult to imagine that an RBOC would construct volume discounts with break points tailored to its own expected long distance volumes. While other carriers that happen to match the size of the RBOC long distance operation at any point in time might be able to avail themselves of similar discounts, IXCs smaller than the RBOCs' own long distance affiliates would be foreclosed from using those discounts. Similarly, without Commission-imposed restrictions, the RBOCs could easily fashion contract-type discounts for their exclusive benefit as well. IXCs have been able to use their contract pricing flexibility effectively to limit a particular set of rates only to a single customer, and there is no reason to expect that the RBOCs will not be able to do the same.

In any case -- particularly if the Commission determines not to delay expansion of volume and term or contract pricing flexibility for ILECs -- the Commission needs to have in place a bright-line guard against improper self-dealings by RBOCs. The test Sprint proposes for this purpose is quite simple: any access rate the RBOC makes available to its own long distance service should be available, without restriction, to any other IXC. That test would protect against unfair self-dealing and would give the RBOCs a powerful incentive not to offer volume and term discounts to other carriers unless those discounts were truly cost-based.

**B. Phase Two -- Actual Competition (§§201-217)**

As a follow-on to its proposed Phase One triggers and access reforms, the Commission proposes a second phase, tied to the existence of actual competition, during which additional pricing flexibility would be granted to the ILECs. The Commission invites comment on three possible factors to consider as Phase Two triggers: demonstrated presence of competition, full implementation of competitively neutral universal service support mechanisms, and credible and timely enforcement of pro-competitive rules by federal and state regulators. When these criteria are met, the Commission would entertain the elimination of price cap service categories within baskets, allowing differential pricing for access for different classes of customers (e.g., business and residential), eliminating mandatory rate structures for transport and local switching, and consolidating traffic sensitive and trunking baskets.

While Sprint fully appreciates the Commission's desire to adopt, now, definitive trigger points for implementing these further reforms, Sprint believes that competition in the local market is far too sparse and immature to determine whether there is significant actual competition that in fact moderates the ILECs' access pricing policies, and that it is far too early to determine whether or what deregulatory actions should be taken. As discussed in Section IV above, there is no substantial competition today in the access market, even four and one-half years since the Commission first sought to substantially enhance such competition through its expanded interconnection policies.<sup>18</sup> Furthermore, as also discussed in Section IV, even if the Commission's Interconnection policies have the effect of opening the

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<sup>18</sup> Expanded Interconnection with Local Telephone Company Facilities, 7 FCC Rcd 7369 (1992).

local market to competition, there is a substantial possibility that there will be no significant general price competition in interstate access.

Even if the introduction of local competition does spur access price competition, it is premature to assume how much actual competition is sufficient to warrant further regulatory reform of access. For example, some may argue that the existence of substantial facilities-based competition in the largest metropolitan area of a particular state will mean that competition is feasible throughout the state and that entry can easily occur elsewhere throughout the state. Others posit that, particularly with the apparently declining interest on the part of cable TV companies in entering the local market, it may be years after entry occurs in large metropolitan areas before entry spreads to less populous regions of a state. Which of these scenarios proves to be true has enormous implications for regulatory policy. Premature deregulation of access could result in above-cost access charges in rural areas and even medium-sized communities for the indefinite future if actual competition is slow to take hold in those markets.

Sprint believes that rather than deciding on Phase Two triggers and Phase Two reforms today, the Commission would far better serve the public interest by closely observing the development of local competition, closely monitoring the effect of such competition on access prices, and then moving quickly to reform access rules if and when competitive conditions warrant. Sprint is not advocating this course of action merely to delay implementation of pricing flexibility that is truly needed by ILECs to have a fair opportunity to compete. On the contrary, given the above average stream of revenue that its own ILEC

operations generate from interstate access,<sup>19</sup> Sprint has an obvious interest in ensuring that its ILECs have the flexibility necessary to respond to competition as and when it develops.

However, it believes that, both for the present and for the near term future, full implementation of geographic deaveraging of access prices should give it and other incumbent LECs all the flexibility they need to respond to the early emergence of local competition, and that a decision when and how to further relax the access charge structure can best be made only in light of actual experience.

The Commission has demonstrated that it can act quickly when the need arises. It completed its mammoth Interconnection decision -- perhaps the finest single piece of work in common carrier regulation in the Commission's history, and also perhaps the most complex proceeding in the Commission's history -- in just six months after the signing of the 1996 amendments to the Act. The Commission's obvious interest in lessening regulation as circumstances permit, coupled with its demonstrated ability to act swiftly, should allay the concerns of other ILECs that putting off consideration of Phase Two reforms, as Sprint proposes, would seriously impair their ability to compete when competition develops to the point that further regulatory relief is needed.

Sprint does wish to discuss briefly two of the proposed triggers for Phase Two addressed in ¶¶203-208. (The first trigger, demonstrated presence of competition, has already been discussed above.) Those two criteria are whether universal service programs are competitively neutral and whether state and federal procompetitive rules are being enforced.

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<sup>19</sup> The Sprint LECs generate 25.5% of their revenue from interstate access, as compared with 22.6% for the RBOCs.

Sprint views the availability of competitively neutral universal service programs as a guarantee and requirement of Section 254, not some mere Congressional ideal that may or may not be implemented in practice.

On the other hand, using effective enforcement of procompetitive policies as a guidepost for determining deregulatory relief is such a vague standard as to be of little usefulness. It is difficult to imagine, as a practical matter, that this Commission would decide that its own enforcement of its rules has been too lax to warrant further relief, and Sprint does not believe the Commission would want to make such determinations with respect to the enforcement programs of the states, either. Obviously, the Commission should use its best efforts to strictly enforce the procompetitive strictures of the 1996 Act and preempt state actions or rules that fail to conform to the requirements of the Act. However, Sprint is skeptical that reviewing the efficacy of such enforcement mechanisms can be an easily administratable trigger point for allowing further access reform.

#### **VI. PRESCRIPTIVE APPROACH TO ACCESS REFORM (§§218-40)**

In §220 of the NPRM, the Commission established, as a goal of prescriptive access reform, adopting rules that would drive access rates to economically efficient levels. However, in §221, the Commission suggests that the appropriate costing standard for access is TSLRIC rather than the TELRIC used in its Interconnection decision, and suggests the possibility that substantially more common costs should be added to TSLRIC for exchange access than the common costs associated with its TELRIC methodology. As indicated in Section I above, Sprint sees little, if any, difference (other than the distortions created by the existing separations process) between exchange access and the transport and termination of an

interconnected local call.<sup>20</sup> In arriving at an appropriate costing standard for transport and termination in its Interconnection Order, the Commission adopted a TELRIC-based methodology (including a reasonable allocation of common costs) and excluded from consideration all non-traffic-sensitive costs. Thus, the Commission allowed only traffic sensitive local switching costs plus transport from the point of interconnection to the end office. See Interconnection Order, ¶¶156-158. Sprint believes there is no basis for adopting a different costing approach for the same function when the minute of use happens to be one that originated (or terminated) in another state instead of in the local calling area. Such different costing standards would create unwarranted complexity in the administrative process, and either would create opportunities for arbitrage or, in order to avoid arbitrage, would necessitate cumbersome requirements (e.g., separate trunk groups, traffic measuring, or reporting PIU factors, etc.). More fundamentally, if cost characteristics of handling a minute of access traffic are the same as those of handling a minute of local traffic -- and there is no reason to believe that is not the case -- then the same rates should apply.

Because of Sprint's skepticism that local competition can be relied on to ensure cost-based access charges, Sprint believes that more direct action must be taken in order to attain the Commission's stated objective. However, most of the prescriptive mechanisms discussed in the NPRM involve either using price cap regulation -- e.g., by increasing the productivity factor or the consumer productivity dividend -- as a mechanism to force access charges to cost over time, or reinitialization of access charges that thereafter would be subject to price caps, as a means of reaching this goal.

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<sup>20</sup> There may be some differences between the tandem switches used for toll calls and those used for local calls.

**Instead Sprint proposes a solution that includes both rate structure reform and a transition to TELRIC-based rates:**

- **Immediately transfer all carrier common line and non-traffic sensitive switching costs to the Subscriber Charge.**
- **Require all the price cap ILECs to submit TELRIC cost studies, and to transition their usage-sensitive switching charges and transport charges to TELRIC levels within five years.**
- **Apply the annual price cap productivity factor against the TIC until it is reduced to zero. In the meantime, the TIC should not be assessed in cases where the transport is provided by an alternative access vendor.**
- **Any increase in explicit universal service funds received by an ILEC should be offset dollar for dollar by reductions in the TIC and in the difference between current and TELRIC-based rates for usage-sensitive switching and local transport.**

**This proposal would place access charges immediately on a sounder economic footing, to the benefit of both IXCs (whose interstate access costs would be cut nearly in half at the outset) and ILECs (who would be far less subject to uneconomic bypass by purchasers of unbundled network elements or facilities-based competitors). It would impose a modest additional monthly charge on subscribers, most of whom will benefit simultaneously from lower charges for toll calls and who can safely be presumed to be able to afford the increase in monthly charges or, if not, to be eligible for universal service support. This plan gets rid of the somewhat mystifying TIC through application of the price cap productivity factor, without the need for lengthy, and quite possible fruitless, inquiries into what costs are in the TIC and who is responsible for those costs. This plan is not revenue-neutral for ILECs. With respect to usage-sensitive local switching costs and local transport costs, it places the responsibility on**

ILECs to manage their businesses knowing that they have to reduce those costs to TELRIC-based levels no later than five years from now. Giving the ILECs reasonable notice of a change in regulatory regime, and giving them time to adapt to that new regime and to a new competitive environment should obviate any claims of ILECs that this phase-down of rates for switching and transport constitutes "confiscation."<sup>21</sup> Even assuming no universal service offsets, interstate access costs would be reduced to TELRIC levels in five years, and would be roughly one-fourth of the level they are today.<sup>22</sup> And assuming there are offsets from a universal service reform plan, the reductions to cost based charges could come much earlier. By immediately cutting usage-based access charges in half, the Sprint plan would also go a long way toward removing the disparity that now exists between the cost of information services (including the Internet) over the switched network and conventional common carriage services that use the network.

In order to implement the Sprint plan, ILECs should be required to file new switched access tariffs that reflect the shifting of carrier common line and non-traffic-sensitive local switching costs to the Subscriber Charge, and a reduction in the usage-based local switching charge to reflect only traffic-sensitive costs. In addition, once the Commission adopts a TELRIC methodology, it should require ILECs to file TELRIC cost studies using the methodology, so that it can ascertain the desired end point -- TELRIC based access charges.

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<sup>21</sup> See, e.g., Duquesne Light Co. v. Barasch, 488 U.S. 299 (1989); Market Street Railway Co. v. Railroad Commission of California, 324 U.S. 548 (1945); and Rogers Truck Line, Inc., v. United States, 14 Ct. Cl. 108 (1987).

<sup>22</sup> As noted earlier, the proposed TIC phase out would take longer than five years for three price cap LECs unless those LECs determined to voluntarily phase out the TIC in a shorter period of time.



The Commission will need to know this end point for purposes of applying any offsetting revenue reductions from increases in universal service support, and also in ensuring that the ILECs comply with the required phase-out of excess charges for switching and transport within the mandated five-year period.

Sprint's plan also calls for a revision in the Commission's approach to price cap regulation. In addition to the obvious change of applying the entire productivity factor to the TIC until it is eliminated, the Commission should discontinue the use of the current productivity factor once all access charges have been reduced to TELRIC levels. If those charges are based on forward-looking costs, rather than embedded costs as they are today, there is little reason to believe that costs should decrease with the same rapidity that embedded costs can be expected to decrease. The productivity factor embodied in the current price cap regulation can, in effect, be viewed as reflecting the savings associated with the gradual replacement of old technology by new technology. Once access prices are based on the costs of new technology, it is only if and when the state of the art advances that forward-looking costs would fall further. While these advances will probably occur, they should not drive forward-looking costs down nearly as quickly as the current productivity factor would suggest. Accordingly, Sprint recommends that the access charges be taken out of price cap regulation once they have been reduced to geographically deaveraged, TELRIC-based levels. Thereafter, any LECs believing that their TELRIC costs are increasing should be free to file tariffs accompanied by updated TELRIC cost studies. And to guard against the possibility that access prices will not keep pace in relation to further changes in technology, the Commission may wish to require periodic filing of TELRIC cost studies (e.g., every three or

five years). The existing price cap annual productivity adjustment may be warranted, however, for the Subscriber Charge, in order to ensure that as the difference between the actual cost levels that exist today and forward-looking costs narrow because of greater use of more efficient plant, equipment and processes, the charge to end users declines as well.

## **VII. TRANSITION ISSUES (§241-70)**

In §§244-245, the Commission observes that retaining such charges as the carrier common line charge could, in effect, compensate incumbent LECs twice for providing universal service after a comprehensive funding of universal service, above some affordable benchmark price, is implemented. To this end, the Commission (§245) proposes a downward exogenous cost adjustment for price cap ILECs to reflect any new revenues received from new universal service support mechanisms, and asks for comment on whether this adjustment should be applied across the board or targeted at particular access rate elements.

Sprint agrees that a continuation of above-cost access charges, in the face of a comprehensive reform of universal service support, would constitute double recovery by ILECs, and agrees that any additional universal service support price cap ILECs may receive should be accompanied, dollar for dollar, by downward adjustments in their access price cap indexes.<sup>23</sup> If Sprint's approach to access reform, discussed in the preceding Section, is adopted, then the required reductions in the price cap index should be applied to the TIC and to the difference between current rates and TELRIC-based rates for traffic-sensitive switching and transport. If, on the other hand, the Commission fails to eliminate the CCLC, then the

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<sup>23</sup> For that matter, non-price-cap LECs should be required to make similar downward adjustments in their access rates.

ILECs should be required to apply their incremental universal service revenues against the price cap indices for both the CCL and TIC in equal proportions until both elements are eliminated, and then against rates for traffic-sensitive switching and transport.

In the balance of this Section of the NPRM, the Commission has invited comment on examination of the extent to which the difference between embedded costs and forward looking costs is attributable to past regulatory requirements, such as forced underpreciation, or inefficiency, and whether and how to give the opportunity to the ILECs to recover these amounts through a separate surcharge.

Sprint believes that the Commission is engaging in essentially a hopeless task in trying to resolve these issues. Undoubtedly, LECs operating in a monopoly environment -- particularly before the institution of price cap regulation -- are not as efficient as carriers subject to vigorous competition. At the same time, it is a practical impossibility to attempt to recreate history by examining, in any detail, how much of the ILECs' cost structures are the result of imprudent management decisions and how much are not. It is also difficult to reconstruct, with any degree of certainty, how much of the existing ILEC cost levels has resulted from formal, or possibly even informal, requirements of state and federal regulators. A far better approach, in Sprint's view, is the one suggested above: using the price cap productivity factor to eliminate the TIC, and placing the burden on ILECs to reduce switching and transport charges to TELRIC-based levels, but giving them a reasonable period of time in which to do so.

Finally, any discussion of transitional issues would be incomplete without consideration of the relationship between transition plans and RBOC applications for in-region

long distance authority. As Sprint has argued above, it would be a serious mistake for the Commission to allow RBOC entry before all access charges -- interstate and intrastate -- have been reduced to economic levels. If the RBOCs wish to receive in-region long-distance authority before any federal and state transition periods to TELRIC-based access charges have ended, the RBOCs should be required to accelerate their own transitions, so that their rates have been reduced to costs before entry occurs.

#### **VIII. OTHER ISSUES (§§271-99)**

##### **A. Regulation of Terminating Access (§§271-81)**

In §271, the Commission observes that even with competition in the local market, terminating access may remain a bottleneck controlled by whichever LEC provides access for a particular customer, and that the LEC may have an incentive to impose high terminating access charges in order to maintain lower rates for service to the end users. The Commission raises several possible solutions to this problem for price cap ILECs: (1) establishing a rate ceiling for terminating access at the level of forward-looking economic costs; (2) requiring the ILEC to charge the end-user for terminating access; or (3) requiring price cap LECs to charge nothing for terminating access and instead permitting them to cover all such costs from originating access charges. In this connection, the Commission also seeks comment on whether it should maintain rate structure rules for terminating access for ILECs for after such rules have been eliminated for originating access. For non-incumbent ILECs, the Commission suggests the possibility of capping the CLECs' terminating access charges at the rate charged by the ILEC, absent a demonstration by the CLEC that its costs are higher than those of the

ILEC. Finally, the Commission asks for comment on treatment of open-end services in light of these issues.

As should be clear from the preceding sections of these comments, Sprint believes it is unclear whether local competition will result in meaningful reductions in access charges.

While the Commission posits (§271) that originating access may be less of a bottleneck than terminating access, Sprint believes that access will continue to be a bottleneck on both ends of the call. If, as many believe, a large percentage of consumers want one-stop shopping, with their local and long distance service provided by the same carrier, ILECs will desire to enter the long distance market in-region,<sup>24</sup> and IXCs, if for no other reason than as a defensive measure, will seek to enter the local market so that they can match the one-stop-shopping opportunities afforded by a package of ILEC/long distance service. In choosing among these packages, the consumer will be most interested in which carrier can offer the lowest total charge for his or her communications requirements, and will be indifferent as to the level of access charges imposed by the LEC on non-affiliated IXCs. For the reasons explained above, ILECs may have an incentive to maximize the amounts they can charge non-affiliated IXCs in order to reduce the revenues they need to recover from the end-user. Thus, Sprint believes that the access bottleneck may remain, even after the development of local competition, for both originating and terminating access.

The Commission may be entirely correct in postulating (§§271-72) that high access charges, on either end of the call, may create an incentive for the IXC to win that local customer. But once the IXC does so, in the event the local customer decides to take services

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<sup>24</sup>Nearly all of the RBOCs have shown great enthusiasm for this prospect.

from a different IXC, or perhaps use "dial-around" IXCs for particular calls, the carrier that provides local service to the customer may have an incentive to charge its competitor-IXCs as much as it can for access.

With respect to ILECs, Sprint has outlined what it believes to be a reasonable transition of access charges to cost-based levels. As for non-incumbent LECs, Sprint supports the suggestion in the NPRM that CLECs' access charges should be no higher than those of the ILEC unless they can cost-justify a higher charge, and Sprint would apply this proposal to both originating and terminating access.

**B. Treatment of Interstate Information Services (§§282-90)**

The Commission has asked for comment on the narrow question of whether to permit ILECs to assess interstate access charges on information service providers, leaving to the NOI portion of the order the separate fundamental issues about the implications of usage of the public switched network by information service and Internet access providers. The Commission tentatively concludes that the existing pricing structure for information services should remain in place at this time. The use of the public switched network for information services in general, and the Internet in particular, do raise issues of fundamental importance to the future of the public switched network. These issues affect all aspects of the communications network and services -- both basic and enhanced -- that have been provided through the use of that network, and Sprint applauds the Commission for initiating an inquiry into those issues.

With respect to the narrow issue on which the Commission seeks comment herein, Sprint supports the Commission's tentative conclusion in §288 that information service

providers should not be required to pay interstate access charges currently, because it would extend a system of non-cost-based rates and inefficient rate structures to an additional class of users, with potentially severe detrimental affects on the information industry. However, Sprint's plan for interstate access charges would immediately result in a substantial reduction in the cost difference that now exists between the use of the network for traditional voice service and its use for information services or Internet telephony, at least insofar as interstate access is concerned. And if states were to follow the Commission's lead, the same would be true for intrastate service as well.

However, if, contrary to Sprint's recommendations in Section III, the Commission continues to recover loop costs from IXC's through some form of carrier common line charge, then, as a matter of fundamental fairness, and indeed as mandated by Section 254, the Commission must consider equitable assignment of loop costs to all entities that make use of the common line, quite possibly including Internet service providers.

**C. Other Part 69 Revisions (§§291-99)**

Sprint believes it is reasonable to require price cap LECs to make an exogenous cost decrease to their PCIs to account for the completion of the amortization of equal access network reconfiguration costs in 1993 (see §293). Without such an adjustment, the ILECs would be able to impose charges for other rate elements to recover costs that simply no longer exist. Sprint would anticipate that most of the equal access recovery costs are in the local switching basket, and the price cap index to that basket clearly should be reduced. However, to the extent that other baskets were affected as well (e.g., transport), appropriate reductions should be made in those PCIs.

If Sprint's approach to access charges is adopted, appropriate amendments to the Part 69 rules would be required, including allocations of local switching costs between non-traffic-sensitive and traffic-sensitive categories. Sprint anticipates that regardless of what plan is adopted, some conforming amendments to Part 69 will be necessary, and they should be made in this proceeding. The other proposed revisions to Part 69, including changing "Telephone Company" to "incumbent LEC", eliminating "contribution costs" in Sections 69.4.(f) and 69.122, and eliminating sections of Part 69 that are no longer effective, are non-controversial and should be adopted by the Commission.

**IX. CONCLUSION**

Sprint's access reform plan will provide immediate and substantial benefits to IXC's and ILEC's alike, and consumers will benefit from substantially lower toll charges as the access rates now embedded in their toll rates are reduced to economic costs. Sprint urges the Commission to adopt this plan, as set forth above.

Respectfully submitted,

**SPRINT CORPORATION**



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## Carrier Common Line Disaggregated

Usage Segment	Access Lines	% of Total	CCL Revenue (Inter & Intra)	% of Total	CCL Revenue per Line
<b>Residential</b>					
0	70,447	2.5%	\$ -	0.0%	\$ -
0-100	767,815	27.2%	\$ 673,485	3.1%	\$ 0.88
100-200	442,665	15.7%	\$ 1,326,621	6.2%	\$ 3.00
200-300	324,892	11.5%	\$ 1,591,209	7.4%	\$ 4.90
300-1000	939,235	33.3%	\$ 9,753,185	45.5%	\$ 10.38
1000-2000	226,949	8.0%	\$ 5,399,230	25.2%	\$ 23.79
2000-5000	50,405	1.8%	\$ 2,335,103	10.9%	\$ 46.33
5000+	2,358	0.1%	\$ 348,841	1.6%	\$ 147.94
<b>TOTAL</b>	<b>2,824,766</b>	<b>100.0%</b>	<b>\$ 21,427,675</b>	<b>100.0%</b>	<b>\$ 7.59</b>
<b>Business</b>					
0	193,955	14.3%	\$ -	0.0%	\$ -
0-100	567,692	42.0%	\$ 363,886	3.5%	\$ 0.64
100-200	152,528	11.3%	\$ 477,805	4.5%	\$ 3.13
200-300	94,035	7.0%	\$ 493,989	4.7%	\$ 5.25
300-1000	235,348	17.4%	\$ 2,710,393	25.8%	\$ 11.52
1000-2000	67,702	5.0%	\$ 1,938,895	18.4%	\$ 28.64
2000-5000	31,536	2.3%	\$ 1,993,250	19.0%	\$ 63.21
5000+	9,617	0.7%	\$ 2,534,321	24.1%	\$ 263.53
<b>TOTAL</b>	<b>1,352,413</b>	<b>100.0%</b>	<b>\$ 10,512,539</b>	<b>100.0%</b>	<b>\$ 7.77</b>

Note: Based on November 1995 billing records for United & Centel Florida, CT&T  
Centel of North Carolina, Ohio, United & Centel Texas Illinois and Missouri

# **Household Telephony: Expenditure, Usage & Elasticity**

Prepared by Brian K. Staihr, Ph.D.  
Manager, Strategic Costing & Pricing

**Estimated Elasticities: Measurements of the responsiveness of demand to changes in the price of each service or feature.**

- Basic access to the network: .03-.05<sup>1</sup>
- IntraLATA toll: .40-.50<sup>2</sup>
- InterLATA toll: .72-.80<sup>3</sup>
- Call Waiting: .52<sup>4</sup>
- Call Forward: 1.39
- Caller ID: 1.33
- Auto Call Return: .49

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<sup>1</sup> Lester Taylor, *Telecommunications Demand in Theory & Practice*, Kluwer Academic Press, 1994.

<sup>2</sup> Ken Train, *Estimating IntraLATA Toll Elasticity*, Telecommunications Policy, 1993.

<sup>3</sup> Taken from an AT&T study prepared by Gatto, Langin-Hooper, Robinson & Tyon, presented to the FCC, cited in Taylor 1994.

<sup>4</sup> All calling feature elasticities estimated by the economic research firm PNR & Associates, Inc., Philadelphia, Pennsylvania, 1994.

## Elasticity, Rate Rebalancing & Pricing:

- “If price mark-ups are needed, economic efficiency is maximized if the mark-up is inversely proportional to the elasticities of demand for the several services involved.”<sup>5</sup>
- “The less elastic the demand for a service, the larger the mark-up it will accept while minimizing the consequent discouragement of consumption.”<sup>6</sup>
- Efficiency requires that “revenue deficiencies be made up primarily in the flat charge for access [to a network], not for usage. The same is true of any deficiencies created by a decision to subsidize some customers in order to keep them from dropping service.”<sup>7</sup>

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<sup>5</sup> Baumol & Bradford, *Optimal Departures from Marginal Cost Pricing*, American Economic Review 1970.

<sup>6</sup> Kahn & Shew, *Current Issues in Telecommunications Regulation: Pricing*, Yale Journal on Regulation, 1987.

<sup>7</sup> Kahn & Shew

## • Overall Expenditure by Household<sup>8</sup>

<u>HH Income Group</u>	<u>% of HH</u>	<u>Average Total Bill</u>
Under 10K Annually	11.1	\$45.40
\$10K-\$19,999	18.9	\$48.70
\$20K-\$29,999	18.8	\$52.10
\$30K-\$39,999	15.3	\$52.70
\$40K-\$49,999	10.8	\$51.90
\$50K-\$74,999	19.1	\$59.60
\$75K-\$99,999	3.7	\$63.11
\$100K and Over	2.3	\$70.51

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<sup>8</sup> Combined expenditure on local and long distance calling. This figure does not include cellular or any other wireless communication. Figures obtained from *Bill Harvesting II Database*, created and compiled by PNR & Associates, Inc., 1995.

## Expenditure on Local Phone Bill<sup>9</sup>

<u>HH Income Group</u>	<u>% of HH</u>	<u>Average LEC Bill</u>
Under 10K Annually	11.1	\$29.21
\$10K-\$19,999	18.9	\$29.56
\$20K-\$29,999	18.8	\$30.12
\$30K-\$39,999	15.3	\$31.01
\$40K-\$49,999	10.8	\$31.78
\$50K-\$74,999	19.1	\$32.79
\$75K-\$99,999	3.7	\$35.60
\$100K and Over	2.3	\$41.73

- It is important to note that nationwide, the average rate for basic service is approximately \$19-\$20 monthly.
- The figures above reveal that even low income households, on average, are spending additional discretionary income on telephony services.

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<sup>9</sup> These figures include intraLATA toll, vertical features, possible payments on customer premise equipment (if billed on a monthly basis), anything that appears on the end-user's bill for which payment is made to the local telephone company.

## Expenditure on Long Distance Bill<sup>10</sup>

<u>HH Income Group</u>	<u>% of HH</u>	<u>Average LD Bill</u>
Under 10K Annually	11.1	\$16.17
\$10K-\$19,999	18.9	\$19.11
\$20K-\$29,999	18.8	\$21.94
\$30K-\$39,999	15.3	\$21.73
\$40K-\$49,999	10.8	\$20.09
\$50K-\$74,999	19.1	\$26.80
\$75K-\$99,999	3.7	\$27.51
\$100K and Over	2.3	\$28.78

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<sup>10</sup> These expenditure figures represent the total amount paid to the long distance company by the end-user, taking into account any optional calling plans, etc. to which the customer might subscribe.

## Expenditure on LEC Toll

<u>HH Income Group</u>	<u>% w/LEC Toll</u>	<u>Avg. Expenditure</u>
Under 10K Annually	52%	\$8.16
\$10K-\$19,999	58%	\$8.59
\$20K-\$29,999	63%	\$8.05
\$30K-\$39,999	68%	\$8.63
\$40K-\$49,999	65%	\$8.78
\$50K-\$74,999	68%	\$8.87
\$75K-\$99,999	67%	\$11.57
\$100K and Over	73%	\$13.99

- On this page it is worth noting that, as expected, the percentage of HH with any LEC toll increases as HH income increases.
- However, the *average amount* spent on LEC toll is extremely consistent across most income groups: Over ½ of low income households expend roughly the same amount of discretionary income on LEC toll calling as households earning \$75K annually!



## Penetration of Vertical Features<sup>11</sup>

<u>HH Income Group</u>	<u>% w/Any Vertical Features</u>
Under 10K Annually	34.3%
\$10K-\$19,999	32.8%
\$20K-\$29,999	39.6%
\$30K-\$39,999	46.2%
\$40K-\$49,999	47.3%
\$50K-\$74,999	48.9%
\$75K-\$99,999	51.6%
\$100K and Over	52.7%

- As expected, the probability of a having vertical features increases with income. However, it is worth noting that income is clearly not a *major* determinant since a tenfold increase in income only raises the probability from 34.3% to 52.7%.

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<sup>11</sup> These figures were taken from the ReQuest III Database compiled by PNR & Associates, Inc.. They were verified using the Yankee Group of Boston's 1995 TAF (Technologically Advanced Family) Residential Survey. A household was included if it had any vertical feature (CCF, CLASS, etc.) and the household was only counted once, regardless of whether they had 10 features or only a single feature such as Call Waiting.